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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,152	07/27/1999	SATOSHI NAKAYAMA	35.G2436	5184

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EXAMINER

VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 09/25/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/361,152

Applicant(s)

NAKAYAMA, SATOSHI

Examiner

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6, 11-16 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 2 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 01 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION II

Drawings

1. The proposed drawing correction and/or the proposed substitute sheet of drawings, filed on July 1, 2003, have been accepted.

Response to Arguments

2. Applicant's arguments filed July 1, 2003, regarding claim 13, have been fully considered but they are not persuasive. Applicant argues that nowhere in the admitted prior art does the applicant teach or suggest that when a flash apparatus is used, a color adjusting circuit corrects at least one of the hue and color saturation in accordance with the illuminating state of the light generated by the flash apparatus to a subject. However, as disclosed on page 5, line 17- page 6, line 2, of the applicant's specification, the flash control circuit supplies information about the intensity of the light emitted by the flash apparatus. Therefore, based on an illumination state of the flash apparatus, the hue is adjusted. Stated broadly, when the flash is used it is an illumination state.

3. Furthermore, applicant states that since the white balance control circuit of both the admitted prior art and Juen outputs only red and green control signals, it is not determining an illumination. However, it is well known in the art that white balance detectors collect all of the colors and then output, only red and blue correction signals. See the cited prior art, U.S. Patent No. 5,691,772. Since the white balance detector collects all of the colors (including green), it is

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controlling the hue based on the illumination. Furthermore, we are only concerned with what is being detected (illuminance) and not what is being output (Wr and Wb).

4. Additionally, new grounds of rejection has been formulated for independent claims 1, 21 and 22.

5. Accordingly, **this office action is non-final** due to the new grounds of rejection which was not necessitated by the amendment.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1, 3, 13, 15, and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by the applicant's admitted prior art as indicated in the specification.**

8. Regarding *claim 1*, on pages 2 through 6 of the specification applicant teaches prior art that includes a linear matrix (209) and a gain control (210) for adjusting the hue of an image signal and a hue correction means (213) for controlling the linear matrix (209) and the gain control (210) such that when a flash (214) is used a white balance is determined and a hue correction is performed by the hue correction circuit (213) based upon the determined white balance. Therefore, the hue is adjusted when a flash apparatus is used. Furthermore, on page 5 of the applicant's disclosure, prior art is shown in which the flash control circuit supplies

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information relating to the amount of light generated by the flash (215). Based upon the amount of flash generated by the flash apparatus the hue correction circuit (213) corrects the hue based upon the supplied white balance information. The white balance information takes into account the amount of flash.

9. As for *claim 3*, applicant shows prior art on page 5 of the specification that discloses that the linear matrix circuit (209) multiplies a first color difference signal by a factor and then adds it to the other color difference signal and multiplies the second color difference signal by a factor and adds it to the first color difference signal. By performing the adjustment in such a manner, the optimal color signal is generated.

10. Regarding *claim 13*, on pages 2 through 6 of the specification applicant teaches prior art that includes a linear matrix (209) and a gain control (210) for adjusting the hue of an image signal and a hue correction means (213) for controlling the linear matrix (209) and the gain control (210) such that when a flash (214) is used a white balance is determined and a hue correction is performed by the hue correction circuit (213) based upon the determined white balance. Therefore, the hue is adjusted when a flash apparatus is used. As disclosed on page 5, line 17- page 6, line 2, of the applicant's specification, the flash control circuit supplies information about the intensity of the light emitted by the flash apparatus. Therefore, based on an illumination state of the flash apparatus, the hue is adjusted. Stated broadly, when the flash is used it is an illumination state.

11. With regard to *claim 15*, applicant also admits the use of a flash (214) incorporated with the camera.

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12. As for *claim 20*, applicant also admits the use of a flash (214) incorporated with the camera.

13. Regarding *claim 21*, applicant discloses in the specification on pages 2-6 a prior art image pickup apparatus which includes a color adjusting circuit and a color controlling circuit. More specifically, the apparatus includes a linear matrix (209) and a gains control circuit (210) which act as the color adjusting circuit. The hue correction circuit (213) acts as the color controlling circuit. Based upon whether a flash is used or not the color adjusting circuit corrects the hue. See page 5 of the specification.

14. With regard to *claim 22*, applicant discloses in the specification on pages 2-6 a prior art image pickup apparatus which includes a color adjusting circuit and a color controlling circuit. More specifically, the apparatus includes a linear matrix (209) and a gain control circuit (210) which act as the color adjusting circuit. Based upon the color temperature, which is determined by the white balance control circuit, the hue is controlled by the linear matrix and the gain control circuit (210). Furthermore when a flash is used the hue correction circuit (213) operates to control the hue of image signal. See pages 4 and 5 of the specification.

15. Regarding *claim 23*, applicant admits that the illuminating state of the flash apparatus used in correcting the hue comprises an amount of light generated by the flash apparatus. See page 5, lines 19-20.

16. As for *claim 24*, as mentioned above the amount of detected white balance is interpreted to be the illuminance of the subject.

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17. Claims 4 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Juen (U.S. Patent No. 6,459,449).

18. Regarding *claim 4*, Juen discloses a color reproduction correction device for an imaging apparatus. The system includes the use of a white balance control circuit (24) for detecting the amount of white balance in the surrounding environment. The amount of white balance in a surrounding environment is equated to the amount of illuminance. Adders (28 and 29) serve as the color adjusting means since they operate to change a color characteristic of the image signal. The correction matrix coefficient generating circuit (31) serves as a first hue controlling means for controlling the adders (28 and 29) so that the color is corrected according to the illuminance detected by the white balance circuit. See column 13, line 34 to column 14, line 37. It is well known in the art that white balance detectors collect all of the colors and then output, only red and blue correction signals. See the cited prior art, U.S. Patent No. 5,691,772. Since the white balance detector collects all of the colors (including green), it is controlling the hue based on the illumination. Furthermore, we are only concerned with what is being detected (illuminance) and not what is being output (W_r and W_b).

19. As for *claim 11*, Juen discloses a white balance control circuit (23) for controlling the white balance of an image signal according to a detected illuminance generated by the white balance setting control circuit (24). A set of adders (28 and 29) act as the color adjusting means since they act as the means for correcting the color based upon a determined coefficient generated by the correction matrix coefficient generating circuit (31). The correction matrix coefficient generating circuit (31) acts as the hue controlling means since it controls the operation of the adders. The information generated by the correction matrix coefficient

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generating circuit (31) is generated based upon the detected illuminance from the white balance setting control circuit (24).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. **Claims 6, 12, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juen (U.S. Patent No. 6,459,449) in view of applicant's admitted prior art as indicated in the specification.**

22. Regarding *claim 6*, as mentioned above in the discussion of claim 4, Juen discloses all of the limitations of the parent claim. However, Juen fails to disclose that the color adjusting means includes a matrix circuit with a construction as defined by the claim. Applicant, on the other hand, shows prior art on page 5 of the specification that discloses that the linear matrix circuit (209) multiplies a first color difference signal by a factor and then adds it to the other color difference signal and multiplies the second color difference signal by a factor and adds it to the first color difference signal. By performing the adjustment in such a manner so that the optimal color signal is generated. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the color correction in such a manner so that an image is generated with accurate color characteristics.

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23. *Claim 12* is considered substantively equivalent to claim 6. Please see the discussion of claim 6 above.

24. As for *claim 16*, as mentioned above in the discussion of claim 4, Juen discloses all of the limitations of the parent claim. Additionally, Juen discloses the ability to correct for different lighting types. However, Juen fails to specifically disclose that the flash is incorporated in the image pickup apparatus. Applicant however, discloses an image system in the prior art that corrects for the hue based on a flash (214) that is incorporated in the camera body. By incorporating a flash in the camera body the user does not have to set and determine optimal lighting conditions. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a flash apparatus in the camera body so the user is able to perform a flash operation without a lot of difficulty with setting up lights or worrying about if there is enough light for proper exposure.

25. *Claim 19* is considered substantively equivalent to claim 16. Please see the discussion of claim 16 above.

26. **Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants admitted prior art as disclosed in the specification, in view of Juen (U.S. Patent No. 6,459,449).**

27. Regarding *claim 14*, as mentioned above in the discussion of claim 13, applicants admitted prior art teaches all of the limitations of the parent claim. Additionally, applicant discloses that the amount of flash is determined by the flash controller (215). It is well known in the art that flashes are not always used when composing an image. Applicants admitted prior art

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fails to teach correction data for correcting a hue based upon whether or not a flash is used.

Juen, however, discloses the use of a ROM correction table memory (9) for pulling a variety of different correction coefficients for a plurality of light sources (col. 12, lines 16-20). When taken in combination with the applicants admitted prior art, it would have been obvious to one of ordinary skill in the art to include a flash light correction data and a normal, non-flash light correction data, so color correction for both conditions can be performed, thus producing an accurate color image under both flash and non-flash conditions.

Allowable Subject Matter

28. **Claims 2 and 5 are objected to** as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

29. Regarding ***claims 2 and 5***, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest a second hue controlling means for adjusting hue according to color temperature wherein the first hue controlling means corrects a correction result of said second hue controlling means.

30. **Claims 7-10, 17, and 18 are allowed.**

31. Regarding ***claim 7***, the primary reason for indication of allowance is that the prior art fails to teach or reasonably suggest a first and second color controlling circuit.

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32. As for **claim 9**, the primary reason for indication of allowance is that the prior art fails to teach or reasonably suggest a second hue controlling means for adjusting the hue based on whether or not a flash is used.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (For either formal or informal communications intended for entry. For informal or draft communications, please label "**PROPOSED**" or "**DRAFT**")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460. The examiner can normally be reached on Monday through Thursday from 7:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service desk whose telephone number is (703) 306-0377.

JMV
9/9/03

VULE
PRIMARY EXAMINER